

ABSTRACT

An optical packet switch switches optical packets according to
5 bit-rates at which the optical packets are provided. For example, optical packets that
are received at similar bit-rates may be routed to a destination at separate time slots
over a single channel wavelength, and optical packets that are received at different
bit-rates may be routed to the destination over separate channel wavelengths. When
optical packets are provided at different bit-rates on a plurality of input paths, optical
10 packets provided at low bit-rates may be compacted before switching to the
destination. Alternatively or additionally, the bit-rates of the optical packets may be
balanced before switching to the destination. Bandwidth contention among optical
packets may be resolved by polarizing optical packets originating from separate input
paths in different polarization directions, and merging optical packets having
15 different polarization directions onto a single switched channel wavelength.
Compaction of optical packets may alternatively be employed for resolution of
bandwidth contention. Related apparatus and methods are also described.